DOCUMENT RESUME

ED 378 511 CG 025 914

AUTHOR Furukawa, Stacy
TITLE The Diverse Living Arrangements of Children: Summer 1991.
INSTITUTION Bureau of the Census (DOC), Washington, DC. Economics and Statistics Administration.
PUB DATE Sep 94
NOTE 35p.
PUB TYPE Reports - Descriptive (141) -- Collected Works - Serials (022)
JOURNAL CIT Current Population Reports; Series P-70 n38 Sep 1994

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Adolescents; *Census Figures; Child Rearing; *Children; Demography; Extended Family; Family (Sociological Unit); *Family Environment; *Family Structure; Nuclear Family; One Parent Family; Population Trends; Sociocultural Patterns; *Statistical Analysis; Stepfamily
IDENTIFIERS *Survey of Income and Program Participation

ABSTRACT

This report presents findings on children's living arrangements as taken from the Survey of Income and Program Participation (SIPP). The SIPP is unique in that it records how each person is related to everyone else in the household. Detailed information on parent-child relationships is provided, allowing identification of biological, step, foster, and adoptive ties. Similar data are collected for siblings. With this additional information, it is possible to examine family structure in more detail than was possible in previous Bureau of the Census reports. The statistics contained herein are based on national-level estimates of children under 18 and their living situations, for the period June through September, 1991. The report's findings pertain to all children, regardless of their marital or parental status. Included in these findings was the fact that 73 percent of children under age 18 lived with two parents, 24 percent lived with one parent, and 3 percent lived with neither parent. Black children were 2.5 times more likely to live in a one-parent family than were White children. The report examines both traditional nuclear families and nontraditional families, and includes data on children in blended families, adopted children, extended families, and other arrangements. Five figures and 12 tables summarize the data. Appendixes include an overview of the SIPP program, definitions and explanations of terms, and source and accuracy of estimates. (RJM)

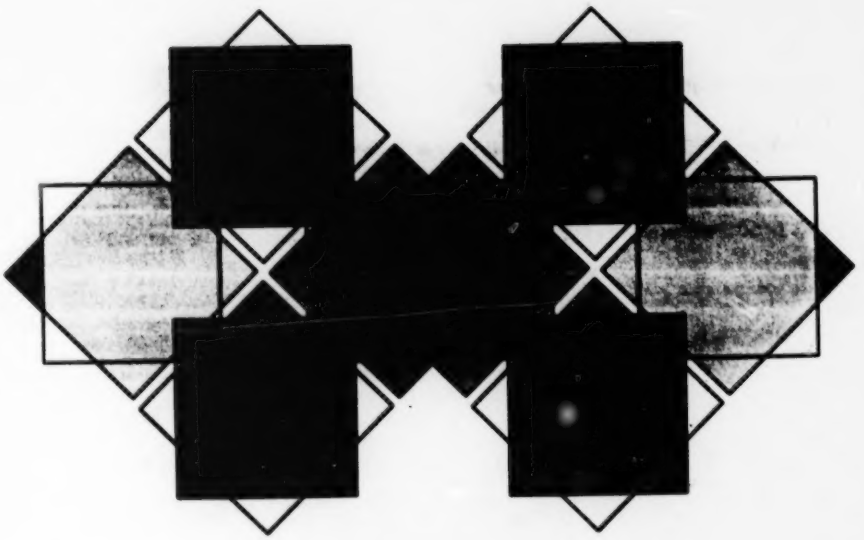
****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 378 511

CG

CURRENT POPULATION REPORTS
Household Economic Studies
P70–38

The Diverse Living Arrangements of Children: Summer 1991



SIPP
Survey of Income and Program Participation

by Stacy Furukawa

U.S. Department of Commerce
Economics and Statistics Administration
BUREAU OF THE CENSUS

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

CG025914

Acknowledgments

This report was prepared in the Population Division, under the general direction of **Donald J. Hernandez**, Chief, Marriage and Family Statistics Branch. **Arthur J. Norton**, Chief, and **Suzanne M. Bianchi**, Assistant Chief, Population Division, provided overall direction. **Catherine O'Brien** and **Edith Reeves** provided statistical assistance. **Lynne Casper** and **Arlene Saluter** of the Population Division reviewed the contents of this report.

Donald Fischer, formerly Chief, Income Surveys Branch, Demographic Surveys Division, coordinated the survey design and data operations.

Donna Riccini, Chief, Income Surveys Programming Branch, Demographic Surveys Division, directed data processing activities.

Bureau of the Census interviewers conducted the data collection, under the overall direction of **Paula J. Schneider**, formerly Chief, Field Division.

Under the supervision of **Rita Petroni**, Demographic Statistical Methods Division, **Tracy James** conducted the sampling review and prepared appendix C.

The staff of the Administrative and Publication Services Division, **Walter C. Odom**, Chief, performed publication planning, editorial review, design, and printing planning and procurement. **Linda Ambill** edited and coordinated the publication.

U.S. Bureau of the Census User Questionnaire

Dear user:
In an effort to improve the quality of this report, the following questionnaire has been included for your comments so we may direct our efforts to providing the information most needed by you, the user. Please take a few moments to fill out this form, fold A to A and fold B to B, then tape and drop it in the mail, postage paid. Thank you for your suggestions and cooperation.

Current Population Reports, P70, No. 38, *Diverse Living Arrangements of Children: Summer 1991*

1. What is your organizational affiliation?

☐ **Federal Government**

☐ **State/local government**

☐ **Educational institution** *Mark (X) one*
- ☐ Student
- ☐ Faculty
- ☐ Administration

☐ **Private organization** *Mark (X) one*
- ☐ Media/information service
- ☐ Trade association
- ☐ Marketing research
- ☐ Legal firm
- ☐ Professional association
- ☐ Research institution
- ☐ Other – *Please specify*

Ⓐ Fold here first

Ⓐ

2. Are you a frequent user of reports issued in this series?

☐ First-time user ☐ Infrequent ☐ Frequent/routine user

3. Are you a user of similar data from:
Mark (X) all that apply.

☐ Other Census Bureau reports
☐ Reports issued by other government agencies – *Please specify organization and report title*
☐ Reports issued by private, nongovernmental organizations
Please specify organization and report title

Please cut along this line.

4. *The following asks two questions about specific sections of the report.*

Was the section useful to you? *(Did it contain information you were looking for?)*

Was the section easy to understand and use?

Please answer each question using the scale provided. Four (4) indicates useful or easy to understand; one (1) indicates not useful or hard to understand.

Fold here

Ⓑ

		Usefulness (Low 1 2 3 4 High)	Easy to understand (Low 1 2 3 4 High)	Not used or not applicable
Analytical:	Text – Introduction	1 2 3 4	1 2 3 4	☐
	Charts	1 2 3 4	1 2 3 4	☐
	Text tables	1 2 3 4	1 2 3 4	☐
Appendixes:	Definitions or Explanations	1 2 3 4	1 2 3 4	☐
	Sampling or Statistical Statements	1 2 3 4	1 2 3 4	☐
	Facsimiles of Questionnaires	1 2 3 4	1 2 3 4	☐
Detailed or reference tables		1 2 3 4	1 2 3 4	☐
Introductory sections: *(e.g., content and use)*		1 2 3 4	1 2 3 4	☐

Please turn form over for user comments.

USER COMMENTS:

How could we improve this publication to meet your needs?

_____

_____

_____

_____

_____

Other comments?

_____

_____

_____

Please cut along this line.

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 16081 WASHINGTON, DC

POSTAGE WILL BE PAID BY BUREAU OF THE CENSUS

BUREAU OF THE CENSUS
POP DIVISION/Marriage and
Family Statistics Branch
WASHINGTON DC 20277-6081

OFFICIAL BUSINESS
Penalty for Private Use, $300

U.S. DEPARTMENT OF COMMERCE
Bureau of the Census
Washington, DC 20233-3400

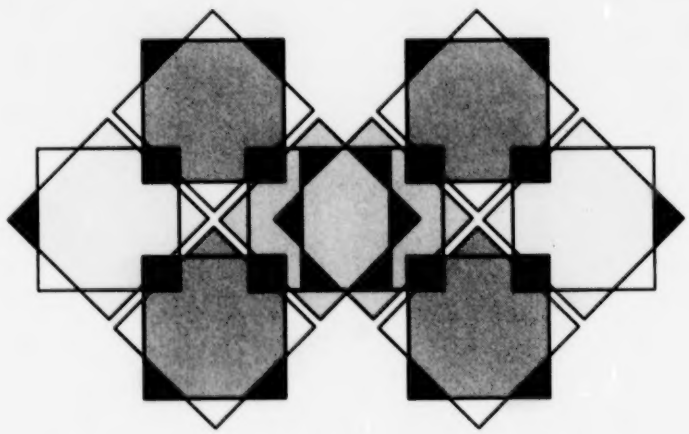
CURRENT POPULATION REPORTS

Household Economic Studies

P70–38

Issued September 1994

The Diverse Living Arrangements of Children: Summer 1991



by Stacy Furukawa

U.S. Department of Commerce
Ronald H. Brown, Secretary
David J. Barram, Deputy Secretary

Economics and Statistics Administration
Everett M. Ehrlich, Under Secretary
for Economic Affairs

BUREAU OF THE CENSUS
Harry A. Scarr, Acting Director

Economics and Statistics Administration
Everett M. Ehrlich, Under Secretary for Economic Affairs

BUREAU OF THE CENSUS
Harry A. Scarr, Acting Director

William P. Butz, Associate Director for Demographic Programs

POPULATION DIVISION
Arthur J. Norton, Chief

SUGGESTED CITATION

Furukawa, Stacy. *The Diverse Living Arrangements of Children: Summer 1991.* U.S. Bureau of the Census, Current Population Reports, Series P70, No. 38. U.S. Government Printing Office, Washington, DC, 1994.

For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

Contents

Page

Introduction and Highlights 1
Living Arrangements of Children 2
The Traditional Nuclear Family 3
Nontraditional Families 4
  Children Living With Two Parents: Biological, Step, Adoptive, and Foster Relationships 4
  Children in Blended Families 4
  Adopted Children 5
  The Extended Family: An Overview 7
    Additional Adults in Single-Parent Households 9
    Additional Relatives by Detailed Type 11
    Multi-generational Households 11
Related Reports 11
User Comments 12

FIGURES

1. Children by Presence of Parents: Summer 1991 2
2. Children Living in Traditional Nuclear Families: Summer 1991 3
3. Children Living in Blended Families: Summer 1991 6
4. Children Living With Parent, in Extended Families: Summer 1991 7
5. Children Living in Extended Families by Presence of Parents: Summer 1991 9

TABLES

1. Living Arrangements of Children Under 18 Years, by Race and Hispanic Origin: Summer 1991 3
2. Children Living with Two Parents by their Biological, Step, Adoptive, and Foster Status, by Race and Hispanic Origin: Summer 1991 4
3. Children by Presence of Nuclear Family Members, by Type of Relationship, Race, and Hispanic Origin: Summer 1991 5
4. Children Living in Blended Families, by Composition of Family, Race, and Hispanic Origin: Summer 1991 6
5. Children Living in Blended Families by Presence of Parents, Race, and Hispanic Origin: Summer 1991 6
6. Adopted Children by Race, Hispanic Origin, and Living Arrangements: Summer 1991 7
7. Children Living in Extended Families by Relationship of Household Members to Child, Race, and Hispanic Origin: Summer 1991 8
8. Children Living with Single Parents, by Presence of Adults of the Opposite Sex, Race, and Hispanic Origin: Summer 1991 10
9. Children Living with Single Parents, by Presence of Adults of the Same Sex, Race, and Hispanic Origin: Summer 1991 10
10. Children Living in Extended Families, by Type of Relative Present, Race, and Hispanic Origin: Summer 1991 11

11. Children Living in Multi-generational Households, by Race and Hispanic Origin: Summer 1991 12
12. Children Living with Grandparents, by Race and Hispanic Origin: Summer 1991 12

APPENDIXES

A. Overview of the SIPP Program A-1
Background A-1
Survey Content A-1
Sample Design A-2
Survey Operations A-2
B. Definitions and Explanations B-1
C. Source and Accuracy of Estimates C-1
D. Data Quality D-1
E. Facsimile of the Household Relationships Questionnaire E-1

The Diverse Living Arrangements of Children: Summer 1991

INTRODUCTION AND HIGHLIGHTS

This report is the first to present findings on the diverse living arrangements of children from the Survey of Income and Program Participation (SIPP). Although many surveys collect information on the relationship of children to the householder, the SIPP is unique in that it records how each person is related to everyone else in the household. Beyond the nuclear family, we can determine, for example, whether a child lives with a grandparent, aunt, uncle, or cousin. Detailed information on parent-child relationships is also provided, allowing us to identify biological, step, foster, and adoptive ties. Similar data are collected for siblings. With this additional information, we now are able to examine family structure in more detail than was possible in previous Bureau of the Census reports. Topics discussed in this report include nuclear families, extended families (including multi-generational families), stepfamilies, and adoption.

The statistics presented in this report are based on national-level estimates of children under 18 and their living situations, for the period June through September, 1991.[1] The findings in this report pertain to all children, regardless of the child's marital or parental status. Since this report is based on a sample survey, its results are subject to sampling variability. In particular, estimates for subgroups under 200,000 and small differences between groups should be interpreted with caution.

The major findings of this report include the following:

- In 1991, 47.8 (±0.4) million children under age 18 lived with two parents (73±0.8 percent); 15.7 (± 0.5) million lived with one parent (24±0.7 percent); and an additional 1.8 (±0.2) million lived with neither parent (3±0.3 percent).[2] Although the majority of children living with a single parent were White (63± 1.7 percent), Black children were 2.5 times more likely to live in a one-parent family than were White children (Blacks, 49±2.2 percent; Whites, 19±0.8 percent).
- One out of two children lived in a nuclear family composed solely of both biological parents and full brothers and sisters (51±0.9 percent). The remaining children lived in a home that included, for example, a single parent, stepparent, grandparent, or another relative or non-relative.
- Fifteen (±0.6) percent of all children (9.8±0.4 million) lived in blended families (i.e., homes in which children lived with at least one stepparent, stepsibling, or half-sibling). More children lived with at least one half-brother or half-sister (7±0.4 million) than with a stepparent (4.6±0.3 million) or with at least one stepsibling (980,000±140,000).
- Living in a blended family was equally likely for children in one-parent families (15.5±1.3 percent) and children in two-parent families (15.2±0.7 percent).
- Approximately 1.1 (±0.1) million children lived with at least one adoptive parent.
- Of children living with at least one parent, 8.0 (±0.4) million (12.5±0.6 percent) lived in an extended household. Approximately 5.7 million (±0.3) children lived in households extended by relatives only, compared with 1.9 million (±0.2) in homes extended by nonrelatives only, and 313,000 (±80,00) in those extended by both relatives and nonrelatives.
- Children in one-parent families were four times more likely to live in an extended family (29.9±1.6 percent) than were children living with two parents (6.8±0.5 percent).
- Among children in single-mother families, 20 (±1.5) percent also lived with an adult male (related or

[1]The estimates for 1991 in this report are inflated to national population controls by age, race, sex, and Hispanic origin. The population controls are based on results of the 1980 census carried forward to 1991. The estimates in this report, therefore, may differ from estimates that would have been obtained using the 1990 census results brought forward to the survey date. Population controls incorporating 1990 results will be used for survey estimation beginning in 1993.

All demographic surveys, including the Current Population Survey (CPS) and the SIPP, suffer from undercoverage of the population. This undercoverage results from missed housing units and missed persons within sample households. Compared with the level of the 1980 Decennial Census, overall CPS and SIPP undercoverage is about 7 percent. Undercoverage varies with age, sex, and race. For some groups such as 20-to-24-year-old Black males, the undercoverage is as high as about 35 percent. The weighting procedures used by the Census Bureau partially correct for the bias resulting from undercoverage. However, its final impact on estimates is unknown. For details, see appendix C, Source and Accuracy of Estimates.

[2]The values shown in parentheses represent the 90-percent confidence interval, which is the standard used by the Census Bureau for the comparison of statistics based on sample surveys. All of the statements in this report meet this requirement. See appendix C for a more detailed discussion of sampling error and how it may affect the data.

unrelated) present in the household; 37 (±5.1) percent of children living with a single father also lived with an adult female (related or unrelated).

- Seven (±0.5) percent of all children (4.7±0.3 million) lived with at least one grandparent. Of children living with a single parent and a grandparent, most lived in the grandparent's home (81±3.8 percent); but among children in two-parent families with a grandparent in the home, most lived in the parents' home (62±5.7 percent).

LIVING ARRANGEMENTS OF CHILDREN

The living patterns of children have changed dramatically over the past three decades. With a growing proportion of women bearing children out of wedlock, along with high divorce rates, more children than ever are spending at least part of their childhood in single-parent families.

In 1991, 73 percent of the 65.7 million children under 18 lived with two parents[3], 21 percent lived with their mother only, 3 percent lived with their father only, and 3 percent lived with neither parent.[4] (See figure 1 and table 1.) Throughout this report, unless a specific type is designated, "parent" refers to a biological, step, adoptive, or foster parent. Although most children lived with two parents, this varied sharply by race and ethnicity: 79 percent of all White children lived with two parents, compared with 42 percent of Black and 64 percent of Hispanic[5] children.

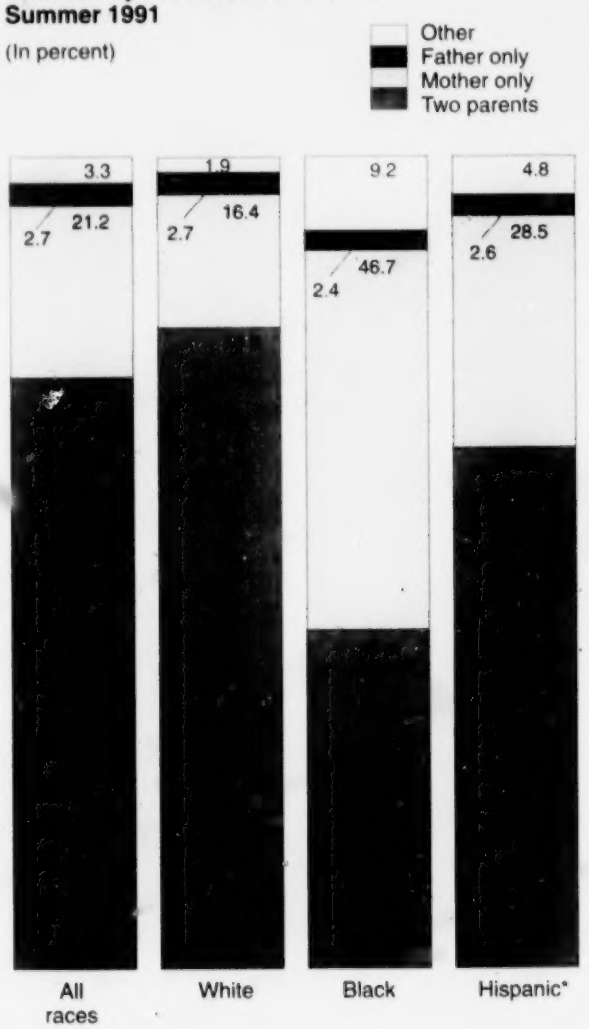
Approximately 15.7 million children lived with one parent. Although the majority of children living with a single parent were White (63 percent), Black children were 2.5 times more likely to live in a one-parent family than were White children. One-half of all Black children lived with one parent (49 percent), whereas nearly one-fifth of White children (19 percent) and one-third of Hispanic children (31 percent) lived in single-parent families. A disproportionate share of Black children lived with a lone parent: 16 percent of all children were Black, yet Blacks constituted one-third of all children living in one-parent families.

About 1.8 million children lived with neither parent. The majority of these children lived with one or both grandparents (61 percent); the others lived with other relatives and/or nonrelatives. Black children comprised one-half of all children living with a grandparent, but without a parent in the home.

Figure 1.

Children by Presence of Parents: Summer 1991

(In percent)



*Persons of Hispanic origin may be of any race.

Source: Table 1.

[3]This group includes 688,000 children who lived with two unmarried parents.

[4]The data presented in table 1 are roughly comparable with estimates yielded by the March 1991 Current Population Survey (CPS). However, in contrast to the CPS, the SIPP estimated more Black children living in two-parent families, and fewer Black children living in single-mother families (see below). It should be noted that the SIPP and the CPS estimates are not based on the same universe of children: the CPS figures exclude children who maintained their own household or family group. Their inclusion in the SIPP estimates only accounts for a minor portion of the difference. It may be that asking for detailed information on a parent-child relationship (i.e., biological, step, foster, and adoptive) encourages the reporting of parental presence, but this is speculative.

Characteristic	SIPP		CPS	
	Number	Percent	Number	Percent
All Black children	10,571	100.0	10,209	100.0
Living with two parents	4,404	41.7	3,669	35.9
Living with mother only	4,938	46.7	5,516	54.0
Living with father only	258	2.4	358	3.5

Source of 1991 CPS data: U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 461, *Marital Status and Living Arrangements: March 1991*, U.S. Government Printing Office, Washington, DC, 1992.

[5]Children of Hispanic origin may be of any race.

Table 1. Living Arrangements of Children Under 18 Years, by Race and Hispanic Origin: Summer 1991

[Numbers in thousands]

Living arrangements	All races	White	Black	Hispanic origin[1]
Children under 18 years	65,727	51,944	10,571	7,525
Living with—				
Two parents	47,826	40,995	4,404	4,826
In a traditional nuclear family[2]	33,403	29,292	2,741	2,846
One parent	15,748	9,919	5,196	2,337
Mother only	13,955	8,503	4,938	2,141
Father only	1,793	1,416	258	196
Grandparents only	1,099	469	570	100
Other	689	385	262	110
Unknown[3]	365	175	138	152
Percent	100.0	100.0	100.0	100.0
Living with—				
Two parents	72.8	78.9	41.7	64.1
In a traditional nuclear family[2]	50.8	56.4	25.9	37.8
One parent	24.0	19.1	49.2	31.1
Mother only	21.2	16.4	46.7	28.5
Father only	2.7	2.7	2.4	2.6
Grandparents only	1.7	0.9	5.4	1.3
Other	1.0	0.7	2.5	1.5
Unknown[3]	0.6	0.3	1.3	2.0

[1]Persons of Hispanic origin may be of any race.

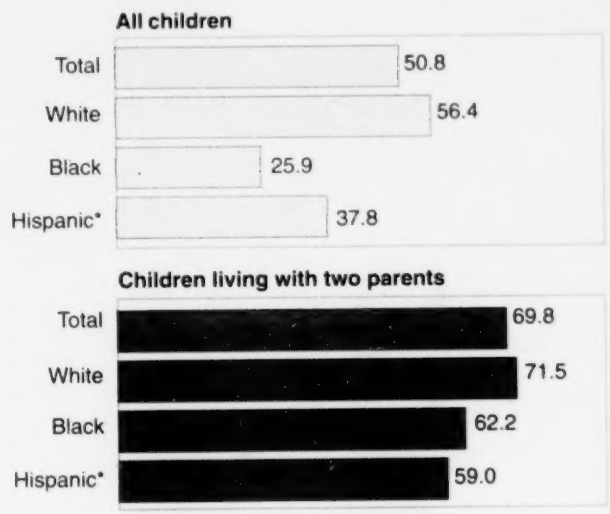
[2]Children in a traditional nuclear family live with both biological parents and, if siblings are present, with full brothers and sisters. No other household members are present.

[3]Data on living arrangements are missing for these children.

Figure 2.

Children Living in Traditional Nuclear Families: Summer 1991

(In percent)



*Persons of Hispanic origin may be of any race.

Source: Table 1.

THE TRADITIONAL NUCLEAR FAMILY

The "decline" of the American family continues to be a controversial topic, both in the academic literature and in the popular press. Although we will not explore the debate in this report[6], we present estimates of what many consider to be the "traditional" family. By this, we refer to nuclear families in which children live with both biological parents and, if siblings are present, with only full siblings (i.e., brothers and sisters who share the same biological parents). No other persons are present in the household. Both parents are currently married, though not necessarily to their first spouse, and both may be employed.[7]

One-half of all children lived in nuclear families composed of only two parents and their biological children (table 1). White children were much more likely than were Black and Hispanic children to live in this type of family (56 percent for Whites, 26 percent for Blacks, and 38 percent for Hispanics). These differences, however, reflect variations in the propensity to live with two parents as well as the composition of two-parent families. Since White children were far more likely than were Black children to live with two parents, it is not surprising to find large differences by race in the proportion of children living in a traditional nuclear family. Simply put, a child cannot live in a traditional nuclear family if one or both parents are absent. Also, some of the variation is because of the composition of two-parent families. Following our definition, children who, for example, lived with two parents in a nuclear step-family or in an extended family were identified as members of a "non-traditional" household. If we focus only on children in two-parent families, do we continue to find such large differences in family composition?

In general, the likelihood of living in a traditional nuclear family is much greater for children in two-parent homes (70 percent) than for children as a whole (51 percent). When we examine only those children who lived in two-parent families, race and ethnic differences are smaller: 72 percent of White children lived in traditional nuclear families, compared with 62 percent of Blacks, and 59 percent of Hispanics. As shown in figure 2, this measure varies widely depending on the universe of children in question. Black and Hispanic children living in two-parent families vary significantly from their

[6]See David Popenoe, "American Family Decline, 1960-1990: A Review and Appraisal," *Journal of Marriage and the Family*, Vol. 55 (August 1993), pp. 14-22. Also see responses by Norvall D. Glenn, Judith Stacey, and Philip A. Cowan that follow the article.

[7]Please refer to Donald J. Hernandez, *America's Children: Resources from Family, Government, and the Economy* (New York: Russell Sage Foundation, 1993), for a discussion of traditional breadwinner-homemaker families, popularly known as "Ozzie and Harriet" families (two-parent families with all children born after the parents' only marriage, the father works full-time year-round, and the mother is not in the labor force).

White counterparts, though not to the degree that is suggested by the first panel, which is based on **all** children.

NONTRADITIONAL FAMILIES

Children Living With Two Parents: Biological, Step, Adoptive, and Foster Relationships

Although in 1991 most children lived in two-parent families, a substantial portion did not live with both biological parents. Here we examine the extent to which children lived with biological, step, adoptive, and foster[8] parents.[9]

Approximately 85 percent of children in two-parent families lived with both biological parents (table 2). An additional 10 percent lived with a biological parent and a stepparent, most frequently with a biological mother and stepfather. Children who lived with a biological parent and an adoptive parent (i.e., related adoptions), were placed in a biological parent/stepparent category in order to be consistent with survey instructions.[10] Less than 2 percent of children lived with foster or adoptive parents: one-half million children lived with two adoptive parents, and 195,000 lived with two foster parents.[11] Similar patterns were found when examining White, Black, and Hispanic children separately.[12]

Table 2. Children Living with Two Parents by their Biological, Step, Adoptive, and Foster Status, by Race and Hispanic Origin: Summer 1991

[Numbers in thousands]

Characteristics of parents	All races	White	Black	Hispanic origin[1]
Children living with two parents	47,826	40,995	4,404	4,826
Biological mother and father	40,553	35,002	3,576	4,129
Biological mother and stepfather	3,672	3,195	351	367
Biological father and stepmother	830	740	40	43
Adoptive mother and father[2]	582	387	103	42
Foster mother and father[3]	195	147	48	-
Other	1,994	1,524	286	245
Percent distribution	100.0	100.0	100.0	100.0
Biological mother and father	84.8	85.4	81.2	85.6
Biological mother and stepfather	7.7	7.8	8.0	7.6
Biological father and stepmother	1.7	1.8	0.9	0.9
Adoptive mother and father[2]	1.2	0.9	2.3	0.9
Foster mother and father[3]	-	-	1.1	-
Other	4.2	3.7	6.5	5.1

- Represents zero or a number that rounds to zero.

[1]Persons of Hispanic origin may be of any race.

[2]Children living with one biological parent and one adoptive parent have been placed in a biological parent/stepparent category.

[3]Foster relationships only include official placements by a government agency or representative of a government agency.

Children in Blended Families

In this report, a child lived in a blended family or blended household if he or she lived with at least one stepparent, stepsibling, and/or half-sibling. A stepparent is the spouse of the child's natural mother or father, but lacks biological ties to the child. In this section, as in the previous one, parents who have adopted their stepchildren are considered stepparents, not adoptive

[8]Respondents were asked to identify foster relationships as those that involved an official placement by a government agency or a representative of a government agency. We assume, however, that some respondents also reported children who were informally fostered.

[9]The data contained in table 7 are estimates based on questions that ask the respondent to identify a parent-child relationship as biological, step, foster, or adoptive. Earlier Census Bureau reports published indirect estimates based on the 1990 Current Population Survey (CPS). The CPS and the SIPP yield very different results. Overall, the direct question used in the SIPP produces an estimate of children living with a biological mother and stepfather that is one-half as large as the estimates obtained indirectly using birth and marital histories from the CPS. The difference is particularly pronounced for Black children: the SIPP estimates that 8 percent of Black children in two-parent families lived with a biological mother and stepfather, compared with 31 percent from the CPS. Correspondingly, the proportion of Black children in two-parent families who lived with two biological parents is far higher in the SIPP than in the CPS (81 percent compared with 64 percent). Also, the SIPP produces lower estimates of children with two adoptive parents than does the CPS (974,000 compared with 582,000 from the SIPP).

It seems likely that estimates of the number of step relationships from the CPS are more accurate than estimates from the SIPP, to the extent that couples have children within marriage. The methodology used with the CPS, however, does not recognize as two biological parents those couples who delay marriage until after the birth of their child, or who never marry but cohabit. In the 1996 SIPP panel, new procedures will be adopted to improve the identification of step relationships.

Source for 1990 CPS data: U.S. Bureau of the Census, Current Population Reports, P23-180, *Marriage, Divorce, and Remarriage in the 1990's*, U.S. Government Printing Office, Washington, D.C., 1992. For information on indirect estimation techniques using the CPS, see: Louisa F. Miller and Jeanne E. Moorman. "Married Couple Families With Children" in *Studies in Marriage and the Family*, U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 162, U.S. Government Printing Office, Washington, DC, 1989.

[10]Please refer to the section, "Adopted Children" for estimates of related versus unrelated adoptions.

[11]The SIPP estimates that in 1991 there were 207,000 foster children under age 18 (0.31 percent of all children), of which 195,000 lived with two foster parents. The remaining children lived with a single foster parent. We discourage researchers from using the 1991 SIPP to study foster children since extremely few cases were present in the file.

[12]Black children in two-parent families were slightly less likely to live with both biological parents and, consequently, more likely to live with foster or adoptive parents.

parents. Half-siblings share only one biological parent, whereas stepsiblings do not have any biological parents in common.

Before discussing the composition of blended families in detail, we examine the extent to which children lived with stepparents, stepsiblings, and half-siblings. When we look at all children, we find that more lived with a half-sibling (11 percent) than with a stepparent (7 percent) or a stepsibling (1 percent) (table 3). Please note that these categories are not mutually exclusive—they represent children living with "at least one" of the relatives specified. Although the patterns for White children were similar to those found for all children, Blacks (4 percent) were less likely to live with a stepparent, as were Hispanic children (6 percent), and more likely to live with a half-sibling (16 percent). Hispanic children (11 percent) were as likely as all children to live with a half-sibling.

In 1991, 9.8 million children lived in a blended family, a home in which at least one stepparent, stepsibling, or half-sibling was present (table 4). Although children living in a blended family represented 15 percent of all children, this reflects only the composition of the household in which they lived, not the complete network of family ties. A somewhat higher percentage of Black children lived in a blended family (20 percent) than did White or Hispanic children (14 percent).[13]

Table 4 also shows the distribution of children in blended families by all possible combinations of step- and half-relatives who were present in the home. Among children living in blended families, the most common situation, regardless of race or ethnicity, was the one in which children lived with at least one half-sibling, but with neither a stepparent nor a stepsibling (50 percent or 5 million children). Black children in blended families, in particular, were far more likely to live with a half-sibling only (71 percent) than were White (45 percent) or Hispanic children in blended families (58 percent). An additional one-fifth of children in blended families lived with a stepparent only (2.1 million), and, similarly, another one-fifth lived with a stepparent and a half-sibling (1.8 million). Few children in blended families lived with a stepsibling only (2 percent) or in the remaining categories shown in table 4.

Surprisingly, children living in one-parent families were about as likely to live in a blended family as were children in two-parent families (16 percent and 15 percent, respectively) (figure 3 and table 5). There are only slight differences in these proportions by race. The proportion of White children in one-parent families living in a blended family (11 percent) is slightly smaller than the comparable measure for those in two-parent families (15 percent). Black children in one-parent families were somewhat more likely to live in a blended family than their counterparts in two-parent families (24 percent and 19 percent). No difference was found for Hispanic children.

Adopted Children

It is very difficult to determine how many adopted children live in the United States. Since a comprehensive federal registry system for adoptions does not yet exist, we must rely on surveys such as the SIPP to

[13]The proportion of White and Hispanic children living in a blended family (14 percent) does not differ from that of all children (15 percent).

Table 3. Children by Presence of Nuclear Family Members, by Type of Relationship, Race, and Hispanic Origin: Summer 1991

[Numbers in thousands]

Living arrangements	All races		White		Black		Hispanic origin[1]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All children under 18 years	65,727	100.0	51,944	100.0	10,571	100.0	7,525	100.0
Presence of Parent								
Living with at least one parent	63,574	96.7	50,914	98.0	9,600	90.8	7,163	95.2
Living with at least one stepparent[2]	4,594	7.0	3,972	7.6	431	4.1	418	5.6
Neither parent is present	2,153	3.3	1,030	2.0	971	9.2	362	4.8
Presence of Brothers and Sisters								
Living with at least one sibling	49,728	75.7	39,607	76.2	7,661	72.5	5,956	79.1
Living with at least one stepsibling	980	1.5	639	1.2	289	2.7	53	0.7
Living with at least one half-sibling	6,989	10.6	4,986	9.6	1,714	16.2	813	10.8
Living with no brothers or sisters	15,999	24.3	12,337	23.8	2,910	27.5	1,569	20.9

- Represents zero or a number that rounds to zero.

[1]Persons of Hispanic origin may be of any race.

[2]Children living with one biological parent and one adoptive parent are considered to live with a stepparent in order to be consistent with survey instructions.

Table 4. Children Living in Blended Families, by Composition of Family, Race, and Hispanic Origin: Summer 1991

[Numbers in thousands]

Living arrangements	All races	White	Black	Hispanic origin[1]
Children living in a blended family	9,807	7,298	2,101	1,016
Percent of all children under 18 years	14.9	14.0	19.9	13.5
Type of blended family:				
Stepparent only[2]	2,068	1,848	152	166
Stepsibling only	235	55	173	5
Half-sibling only	4,966	3,271	1,485	593
Stepparent and stepsibling	517	409	62	32
Stepparent and half-sibling	1,794	1,540	176	203
Stepsibling and half-sibling	13	-	13	-
Stepparent, stepsibling, and half-sibling	216	175	40	16
Percent	100.0	100.0	100.0	100.0
Stepparent only[2]	21.1	25.3	7.2	16.3
Stepsibling only	2.4	0.8	8.2	0.5
Half-sibling only	50.6	44.8	70.7	58.4
Stepparent and stepsibling	5.3	5.6	3.0	3.1
Stepparent and half-sibling	18.3	21.1	8.4	20.0
Stepsibling and half-sibling	-	-	0.6	-
Stepparent, stepsibling, and half-sibling	2.2	2.4	1.9	1.6

- Represents zero or a number that rounds to zero.

[1]Persons of Hispanic origin may be of any race.

[2]Children living with one biological parent and one adoptive parent are considered to live with a stepparent in order to be consistent with survey instructions

provide this information.[14] Certainly our figure underestimates the true number of adoptions, particularly children who were adopted by a stepparent. In the SIPP, respondents were instructed to identify parents who were both step- and adoptive as stepparents, though

[14]Christine Bachrach and colleagues estimate that 1.1 million children were adopted (in any year) based on information collected from 20-54 year old women responding to the 1987 National Health Interview Survey. Citations for earlier articles by Bachrach using the National Survey of Family Growth can be found at the end of that report. Please refer to the National Committee For Adoption's *Factbook* for information on adoption at the state level. For a recent discussion of data sources, see Kathy Stolley's chapter, "Statistics on Adoption in the United States," in *The Future of Children: Adoption*.

Bachrach, C.A., Adams, P.F., Sambrano, S., and London, K.A. *Advance data: Adoption in the 1980's*. Advance data from vital and health statistics; no 181. Hyattsville, MD: National Center for Health Statistics, 1990.

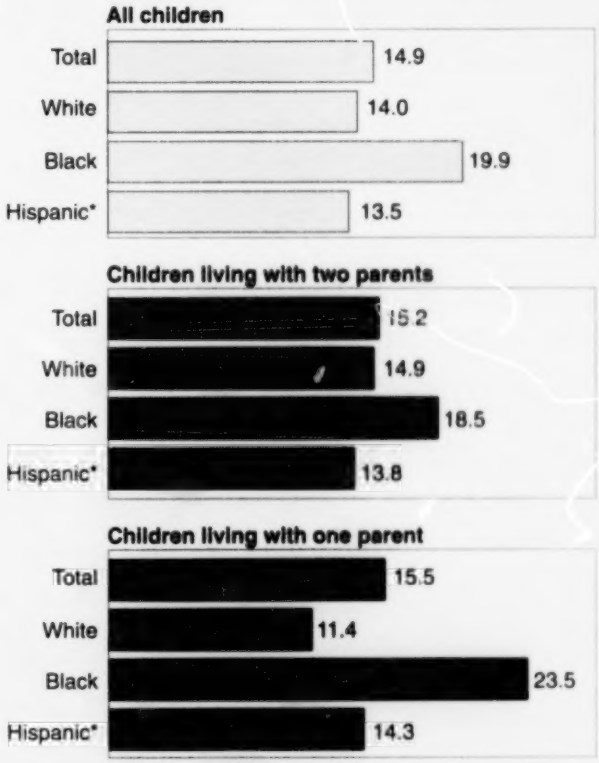
National Committee For Adoption. *1989 Adoption Factbook: United States Data, Issues, Regulations, and Resources*. Washington, D.C., National Committee For Adoption, 1989.

Behrman, Richard E., M.D. *The Future of Children: Adoption*. Vol. 3, No. 1. Los Altos, CA: Center for the Future of Children, The David and Lucile Packard Foundation, 1993.

Figure 3.

Children Living in Blended Families: Summer 1991

(In percent)



*Persons of Hispanic origin may be of any race.

Source: Table 4 and 5.

Table 5. Children Living in Blended Families by Presence of Parents, Race, and Hispanic Origin: Summer 1991

[Numbers in thousands]

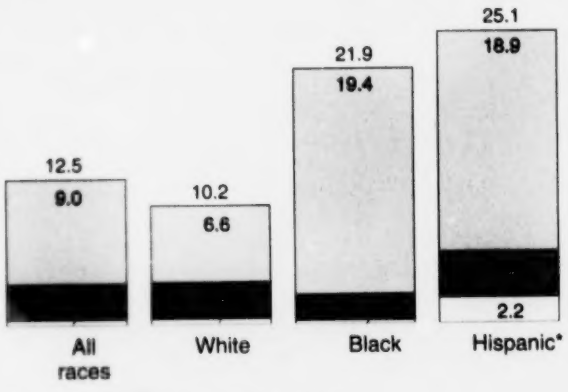
Living arrangements	Living with—		
	Two parents	One parent	Neither parent
All races	47,826	15,748	1,788
Living in a blended family	7,249	2,448	110
Percent in a blended family	15.2	15.5	6.2
White	40,995	9,919	854
Living in a blended family	6,120	1,135	43
Percent in a blended family	14.9	11.4	5.0
Black	4,404	5,196	832
Living in a blended family	813	1221	68
Percent in a blended family	18.5	23.5	8.2
Hispanic origin[1]	4,826	2,337	210
Living in a blended family	668	334	13
Percent in a blended family	13.8	14.3	6.2

[1]Persons of Hispanic origin may be of any race.

Figure 4.

Children Living With Parent in Extended Families: Summer 1991

(In percent)



*Persons of Hispanic origin may be of any race.

Source: Table 7.

Table 6. Adopted Children by Race, Hispanic Origin, and Living Arrangements: Summer 1991

[Numbers in thousands]

Characteristics	Number	Percent
Adopted children	1,062	100.0
Race:		
White	805	75.8
Black	130	12.2
Other	127	12.0
Hispanic origin[1]:		
Hispanic	65	6.1
Not Hispanic	997	93.9
Living arrangements:		
Two parents	936	88.1
Two adoptive parents	581	54.7
One adoptive and one biological	324	30.5
One adoptive and one other	31	2.9
One parent	126	11.9
Mother only	110	10.4
Father only	16	1.5

[1]Persons of Hispanic origin may be of any race.

some reported an adoptive relationship. For consistency, children who lived with one biological parent and one adoptive parent were recoded as stepchildren in the two previous sections. Here, however, we accept the original response and consider them as related adoptions, children who have been adopted by a stepparent. Respondents were also asked to identify only legal adoptions, though surely some also included informal adoptions. With these qualifications, we estimate that 1.1 million children lived with at least one adoptive parent in 1991 (table 6). One-half of all adopted children lived with two adoptive parents, and one-third lived with one biological and one adoptive parent. Twelve percent of all adopted children lived with single parents.

In general, we do not encourage the use of the SIPP to study adopted children, simply because too few cases exist to permit much beyond the level of description shown in table 6. Anything more complex, even a cross-tabulation of this group by age, race, and sex, will almost certainly produce estimates that are too small to be reliable.

The Extended Family: An Overview

A variety of factors influence whether or not a household is extended. Among the most important are economic factors such as poverty, unemployment, and the shortage of affordable housing, but cultural factors must also be considered.[15] In this report, we identify a child as living in an extended family if at least one parent as well as someone beyond the nuclear family (related or unrelated to the child) also lived in the household. In this section, the term "nuclear family" refers to a family composed only of a child's parent(s) and siblings. Parent-child and sibling relationships may be biological, step-, half-, adoptive, or foster. (In contrast, the traditional nuclear family definition used earlier in this report required that all parental and sibling ties be biological.) This definition excludes 1.8 million children who lived in a household with neither parent, but with at least one relative or non-relative.

In 1991, 8.0 million children lived in extended families, representing 12.5 percent of all children living with at least one parent (figure 4 and table 7). White children were half as likely to live in an extended family as Black and Hispanic children (10 percent, 22 percent, and 25 percent, respectively).

Figure 4 also shows the relationship of extended household members to the child. Of all children living with at least one parent, 9 percent lived with extended household members who were relatives only (e.g., grandparents, in-laws, aunts, uncles). Far fewer children lived with nonrelatives only (3 percent), and less than one percent lived with both relatives and nonrelatives. Black (19 percent) and Hispanic children (19 percent) were more likely to live in a household extended by relatives only than were White children (7 percent). Small proportions of White, Black, and Hispanic children lived with nonrelatives only or with both relatives and nonrelatives.

[15]For a recent review of research on African-American extended families, please see Steven Ruggles, "The Origins of African-American Family Structure," *American Sociological Review*, Vol. 59 (February 1994), pp. 136-151.

Table 7. Children Living in Extended Families, by Relationship of Household Members to Child, Race, and Hispanic Origin: Summer 1991

[Numbers in thousands]

Living arrangements	Children living with one or both parents									
	Total		Two parents		One parent					
					Total		Mother only		Father only	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All races	63,754	100.0	47,826	100.0	15,748	100.0	13,955	100.0	1,793	100.0
Children living in an extended household	7,951	12.5	3,235	6.8	4,716	29.9	4,092	29.3	624	34.8
Relationship of extended household members to child:										
Relatives only	5,749	9.0	2,594	5.4	3,155	20.0	2,803	20.1	352	19.6
Nonrelatives only	1,891	3.0	542	1.1	1,349	8.6	1,099	7.9	250	13.9
Both	313	0.5	100	-	213	1.4	191	1.4	22	1.2
White	50,914	100.0	40,995	100.0	9,919	100.0	8,503	100.0	1,416	100.0
Children living in an extended household	5,210	10.2	2,350	5.7	2,861	28.8	2,383	28.0	478	33.8
Relationship of extended household members to child:										
Relatives only	3,373	6.6	1,827	4.5	1,546	15.6	1,277	15.0	269	19.0
Nonrelatives only	1,582	3.1	423	1.0	1,159	11.7	960	11.3	199	14.1
Both	255	0.5	100	-	155	1.6	145	1.7	10	0.7
Black	9,600	100.0	4,404	100.0	5,196	100.0	4,938	100.0	258	100.0
Children living in an extended household	2,100	21.9	444	10.1	1,656	31.9	1,550	31.4	106	41.1
Relationship of extended household members to child:										
Relatives only	1,861	19.4	389	8.8	1,473	28.3	1,411	28.6	62	24.0
Nonrelatives only	208	2.2	55	1.2	154	3.0	116	2.3	38	14.7
Both	30	-	-	-	30	0.6	23	0.5	7	2.7
Hispanic origin[1]	7,163	100.0	4,828	100.0	2,337	100.0	2,141	100.0	196	100.0
Children living in an extended household	1,795	25.1	858	17.8	937	40.1	820	38.3	117	59.7
Relationship of extended household members to child:										
Relatives only	1,357	18.9	649	13.4	708	30.3	626	29.2	82	41.8
Nonrelatives only	279	3.9	144	3.0	136	5.8	100	4.7	36	18.4
Both	160	2.2	65	1.3	95	4.1	95	4.4	-	-

- Represents zero or a number that rounds to zero.

[1]Persons of Hispanic origin may be of any race.

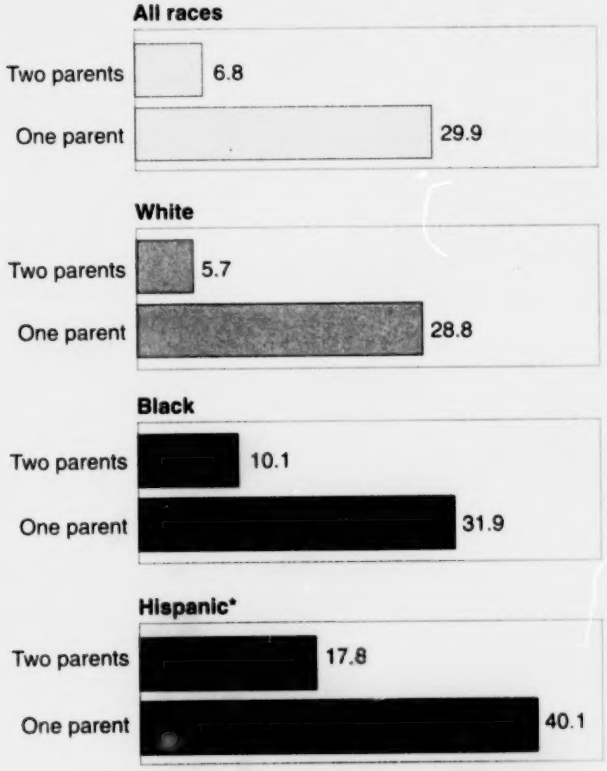
Are children more likely to live in an extended family if they live with one parent rather than with two parents? The difference illustrated in figure 5 is striking: Children in one-parent families were four times more likely to live in an extended family than were children living with two parents (30 percent compared with 7 percent). Very large differences are found when we examine each racial and ethnic group separately, although, except for White children, they are not of the same magnitude as that found for children in general. The likelihood of living in an extended family was about five times greater for White children in one-parent families (29 percent) than for those who lived with two parents (6 percent). In contrast, 32 percent of Black children living with a single parent also lived in an extended family, compared with 10 percent of those in two-parent families. Hispanic children were twice as likely to live in an extended family if they lived with one parent (40 percent) rather than with two parents (18 percent).

Finally, we compare the types of extended family members living in a household by whether children lived with one or two parents. Among children in two-parent families, 5 percent lived in households that included other relatives only, and an additional 1 percent lived with at least one nonrelative. Black and Hispanic children (9 percent and 14 percent) were roughly two to three times as likely as Whites (5 percent) to live in a household extended by other relatives. When we turn to children living with one parent, we find that 20 percent lived in a household extended by relatives only, 9

Figure 5.

Children Living in Extended Families by Presence of Parents: Summer 1991

(In percent)



*Persons of Hispanic origin may be of any race.

Source: Table 7.

percent lived with nonrelatives only, and 1 percent lived with both relatives and nonrelatives. Among children in one-parent families, Whites (16 percent) were less likely than Blacks (28 percent) or, similarly, Hispanics (30 percent) to live with relatives only. However, White children in one-parent families (12 percent) were more likely than either Black (3 percent) or Hispanic (6 percent) children to live with nonrelatives only.

Additional Adults in Single-Parent Households. Table 8 presents estimates of the number of children who lived in single-parent households that were extended by at least one additional adult. Such adults represent potential sources of household support, with contributions including financial assistance and child care. Since households are extended if they include anyone beyond the nuclear family (i.e., someone who is not the child's parent, brother, or sister), we do not consider a child's adult brother or sister to be an "additional adult" in this section. First, we discuss the extent to which children in one-parent families lived in households that included adults of the **opposite** sex (e.g., children living with a single mother and at least one adult male), then we turn to single-parent families in which the additional adult is of the ***same*** sex as the parent.

One out of every five children (20 percent) in single-mother families lived with at least one adult male in the household, although this occurred more frequently among Whites (23 percent) and, similarly, Hispanics (21 percent) than among Blacks (14 percent) (table 8). Ten percent of all children in single-mother families lived with at least one male relative, 7 percent lived with a male nonrelative, and 3 percent lived with a male of unknown relation. (Please note that these categories are not mutually exclusive; for example, children living with a relative and a nonrelative were included in both categories.) Of all children who lived with a single mother, the proportion who, in addition, resided with at least one adult male relative in the home was similar for Whites (10 percent), Blacks (11 percent), and Hispanics (13 percent). In contrast, White children in mother-only families were more likely than Blacks to have at least one unrelated adult in the household (11 percent and 2 percent). Although our data do not allow us to determine what proportion of the single mothers and unrelated men were unmarried partners, we assume that many were cohabitors. Beginning in 1996 the SIPP will more explicitly identify such relationships.[16]

In contrast, children living with a single father were twice as likely as children in single-mother families (37 percent and 20 percent, respectively) to live with an adult of the opposite sex of the parent (table 8). Among White children, one-third lived with a single father and at least one adult female, but the values for Black and Hispanic children are unreliable because of small sample sizes. Approximately one-fifth (19 percent) of children in single-father families lived with at least one adult female relative, 13 percent lived with an unrelated adult female, and 6 percent lived with a female of unknown relation.[17]

Children in mother-only families are extremely similar to their counterparts in father-only families in the proportions living with an additional adult of the **same** sex as the parent. (19 percent) (table 9). Moreover, the two groups did not differ in the terms of how each additional adult was related to the child: 16 percent of children in single-mother homes lived with at least one female

[16]For a discussion of the extent to which cohabitation patterns affect the classification of women and children in single-parent families, see L. L. Bumpass and R. K. Raley, "Trends in the Duration of Single-Parent Families." NSFH Working Paper No. 58 (1993), National Survey of Families and Households, University of Wisconsin, Madison, Wisconsin.

[17]The proportion of children who lived with a single mother and an adult male (related or unrelated) does not differ from the proportion of children who lived with a single father and at least one adult female relative present in the household.

Table 8. Children Living with Single Parents, by Presence of Adults of the Opposite Sex, Race, and Hispanic Origin: Summer 1991

[Numbers in thousands]

Living arrangements	All races		White		Black		Hispanic origin[1]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Living with mother only	13,955	100.0	8,503	100.0	4,938	100.0	2,141	100.0
Presence of at least one adult male, other than brothers	2,816	20.2	2,023	23.8	696	14.1	458	21.4
Relationship of adult male to child:								
Living with at least one—								
Relative	1,455	10.4	853	10.0	520	10.5	279	13.0
Nonrelative	1,018	7.3	902	10.6	110	2.2	145	6.8
Relationship unknown	401	2.9	320	3.8	73	1.5	34	1.6
Living with father only	1,793	100.0	1,416	100.0	258	100.0	196	100.0
Presence of at least one adult female, other than sisters	661	36.9	500	35.3	121	46.9	131	66.8
Relationship of adult female to child:								
Living with at least one—								
Relative	342	19.1	255	18.0	61	23.6	82	41.8
Nonrelative	227	12.7	171	12.1	38	14.7	36	18.4
Relationship unknown	114	6.4	85	6.0	21	8.1	13	6.6

[1]Persons of Hispanic origin may be of any race.

Table 9. Children Living with Single Parents, by Presence of Adults of Same Sex, Race, and Hispanic Origin: Summer 1991

[Numbers in thousands]

Living arrangements	All races		White		Black		Hispanic origin[1]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Living with mother only	13,955	100.0	8,503	100.0	4,938	100.0	2,141	100.0
Presence of at least one adult female, other than mother or sisters	2,639	18.9	1,429	16.8	1,085	22.0	558	26.1
Relationship of adult female to child:								
Living with at least one—								
Relative	2,283	16.4	1,146	13.5	1,035	21.0	511	23.9
Nonrelative	289	2.1	237	2.8	13	-	96	4.5
Relationship unknown	181	1.3	138	1.6	36	0.7	31	1.4
Living with father only	1,793	100.0	1,416	100.0	258	100.0	196	100.0
Presence of at least one adult male, other than father or brothers	335	18.7	256	18.1	52	20.2	54	27.6
Relationship of adult male to child:								
Living with at least one—								
Relative	258	14.4	185	13.1	46	17.8	48	24.5
Nonrelative	50	2.8	43	3.0	7	2.7	-	-
Relationship unknown	34	1.9	28	2.0	6	2.3	6	3.1

- Represents zero or a number that rounds to zero.

[1]Persons of Hispanic origin may be of any race.

relative, and 14 percent of those in single-father homes lived with at least one male relative.

Additional Relatives by Detailed Type. Which relatives do children in extended families most frequently live with? One might imagine that these households most often include grandparents, and this is indeed what is shown in table 10. (Note: the categories in table 10 are not mutually exclusive.) Regardless of race or origin, 46 percent of children in extended families lived with at least one grandparent, and more children lived with only a grandmother (25 percent) than with both a grandmother and a grandfather (17 percent). Approximately three times as many Black and Hispanic children lived with one grandparent as with two grandparents, compared with 1.5 times as many for Whites.

Of the 8.0 million children living in an extended family, similar proportions lived with at least one uncle (19 percent) or an aunt (20 percent). Another one-fifth lived with a cousin, although the proportion was particularly large for Black children, about one-third of whom lived with a cousin (35 percent).

Multi-generational Households. Many children living in extended families also live in multi-generational households. In 1991, 3.8 million children lived in three- or four generation families, almost all of whom lived with a parent and a grandparent (96 percent, table 11). The remaining children lived with a parent and an own child, with a grandparent and an own child, or in a four-generation household.

If all children are considered, not only those in extended families, 4.7 million lived with a grandparent (7 percent of all children under 18) (table 12). One million children were raised by their grandparents without a parent present in the household, constituting about one-fourth of all children living with a grandparent. The largest proportion of children living with grandparents, however, lived with single mothers (40 percent); 31 percent lived with both parents.

The proportion of children living with a grandparent differs by race and Hispanic origin. Black children were three times more likely than were White children to live with a grandparent (15 percent compared with 5 percent); Hispanic children were twice as likely as Whites to live with a grandparent (12 percent). Among Black children living with a grandparent, the overwhelming majority had either one or neither parent in the household (93 percent). In contrast, approximately 60 percent of White and Hispanic children lived in a home with a grandparent and one or neither parent.

When children live with their parents and grandparents, which generation is the householder? The results are quite different depending on whether the children live with one or both parents. According to table 12, among children living in three-generation, two-parent families, less than half lived in the grandparent's home (38 percent), but 81 percent of children living in three-generation, one-parent families lived in the grandparent's home. Does this suggest, then, that in multi-generational households, two-parent families may be more likely to provide care to the older generation, whereas single mothers and fathers may be more apt to obtain support from their own parents? This pattern, while certainly intriguing, cannot be supported by the information shown in table 12. This question requires further research at the **family** level; our findings only describe characteristics of children, not of each individual family or household. In other words, since children are the unit of analysis, the characteristics of a five-child family are represented five times in table 12, whereas an only child is represented only once.

Table 10. Children Living in Extended Families, by Type of Relative Present, Race, and Hispanic Origin: Summer 1991

[Numbers in thousands]

Living arrangements	All races	White	Black	Hispanic origin[1]
Total children in extended families[2]	7,951	5,210	2,100	1,795
Living with at least one—				
Grandmother and grandfather	1,323	914	280	197
Grandmother only	2,004	1,137	680	532
Grandfather only	312	257	49	79
Uncle	1,506	825	438	513
Aunt	1,567	868	512	542
Nephew	451	196	231	143
Niece	486	182	276	167
Father-in-law	15	5	9	-
Mother-in-law	13	7	-	-
Brother-in-law	32	19	-	4
Sister-in-law	86	64	18	24
Cousin	1,704	788	729	461
Percent	100.0	100.0	100.0	100.0
Grandmother and grandfather	16.6	17.5	13.3	11.0
Grandmother only	25.2	21.8	32.4	29.6
Grandfather only	3.9	4.9	2.3	4.4
Uncle	18.9	15.8	20.9	28.6
Aunt	19.7	16.7	24.4	30.2
Nephew	5.7	3.8	11.0	8.0
Niece	6.1	3.5	13.1	9.3
Father-in-law	-	-	-	-
Mother-in-law	-	-	-	-
Brother-in-law	-	-	-	-
Sister-in-law	1.1	1.2	0.9	1.3
Cousin	21.4	15.1	34.7	25.7

- Represents zero or a number that rounds to zero.

[1]Persons of Hispanic origin may be of any race.

[2]At least one parent lives in the household.

RELATED REPORT

Additional information on the living arrangements of children is presented in Current Population Reports, Series P20-478, *Marital Status and Living Arrangements: March 1993*. Based on the Current Population Survey, this report includes more detail on the age of the children and characteristics of their parents. *We, the American Children*, WE-10, provides a brief summary of

Table 11. Children Living in Multi-generational Households, by Race and Hispanic Origin: Summer 1991

[Numbers in thousands]

Living arrangements	All races	White	Black	Hispanic origin[1]
Children living in multi-generational households	3,775	2,378	1,077	831
Percent of all children under 18 years	5.7	4.6	10.2	11.0
With parent and grandparent	3,634	2,304	1,009	808
With parent and own child	127	66	61	23
Other[2]	14	8	7	-
Percent	100.0	100.0	100.0	100.0
With parent and grandparent	96.3	96.9	93.7	97.2
With parent and own child	3.4	2.8	5.7	2.8
Other[2]	-	-	0.6	-

- Represents zero or a number that rounds to zero.

[1]Persons of Hispanic origin may be of any race.
[2]Children living in four-generation households or with a grandparent and an own child.

Table 12. Children Living with Grandparents, by Race and Hispanic Origin: Summer 1991

[Numbers in thousands]

Living arrangements	All races	White	Black	Hispanic origin[1]
Children living with at least one grandparent	4,737	2,777	1,580	908
Percent of all children under 18 years	7.2	5.3	14.9	12.1
Presence of parents:				
Living with both parents	1,459	1,112	118	336
Grandparent is the householder	555	454	63	82
Percent	38.0	40.8	53.4	24.4
Living with mother only	1,876	971	839	396
Grandparent is the householder	1,520	837	651	280
Percent	81.0	86.2	77.6	70.7
Living with father only	303	225	53	76
Grandparent is the householder	255	189	47	65
Percent	84.2	84.0	88.7	85.5
Living with neither parent	1,099	469	570	100
Percent	100.0	100.0	100.0	100.0
Living with both parents	30.8	40.0	7.5	37.0
Living with mother only	39.6	35.0	53.1	43.6
Living with father only	6.4	8.1	3.4	8.4
Living with neither parent	23.2	16.9	36.1	11.0

[1]Persons of Hispanic origin may be of any race.

demographic and economic information pertaining to children from the 1990 Census. A chartbook illustrating demographic, social and economic trends that have influenced the characteristics of households and families (with special emphasis on children) is available in *Households, Families and Children: A Thirty Year Perspective*, Current Population Reports, Series P23-181.

Detailed statistics on household type and composition for 1993 and historical data back to 1947 on households and families by type are presented in Series P-20, No. 477, *Household and Family Characteristics: March 1993*. Projections for the United States of the number of households and families were published in Series P-25, No. 986, *Projections of the Number of Households and Families: 1986 to 2000*, but are currently being updated.

Estimates of the number and characteristics of household and families that remain intact, dissolve, and/or are newly formed over 1-year and 2-year periods are presented in Current Population Reports, Series P23-179, *When Households Continue, Discontinue, and Form*. The most up-to-date information on the recent marital history of the population may be found in Current Population Reports, Series P23-180, *Marriage, Divorce, and Remarriage in the 1990's*.

USER COMMENTS

We are interested in your reaction to the usefulness of the information presented here, and welcome recommendations for improving our survey work. If you have suggestions or comments, please complete the attached user survey form in front of the report and mail as indicated.

Appendix A. Overview of the SIPP Program

BACKGROUND

The Survey of Income and Program Participation (SIPP) provides a major expansion in the kind and amount of information available to analyze the economic situation of households and persons in the United States. The information supplied by this survey is expected to provide a better understanding of the level and changes in the level of well-being of the population and of how economic situations are related to the demographic and social characteristics of individuals. The data collected in the SIPP is especially useful in studying Federal transfer programs, estimating program cost and effectiveness, and assessing the effect of proposed changes in program regulations and benefit levels. Analysis of other important national issues such as tax reform, Social Security program costs, and national health insurance can be expanded and refined, based on the information from this survey.

The first interviews in the SIPP took place in October 1983, nearly 8 years after the research and developmental phase, the Income Survey Development Program (ISDP), was initiated by the Department of Health, Education, and Welfare in 1975. Between 1975 and 1980, extensive research was undertaken to design and test new procedures for collecting income and related socioeconomic data on a subannual basis and in a longitudinal framework. Much of the work centered around four experimental field tests that were conducted in collaboration with the Bureau of the Census to examine different concepts, procedures, questionnaires, and recall periods. Two of the tests were restricted to a small number of geographic sites; the other two were nationwide. In the first nationwide test, the 1978 Research Panel, approximately 2,000 households were interviewed. Because of the relatively small number of interviews, controlled experimental comparisons of alternatives were not possible; however, the panel did demonstrate that many new ideas and methods were feasible. It also laid a foundation for the largest and most complex test: the 1979 Research Panel. This panel consisted of a nationally representative sample of 8,200 households and provided a vehicle for feasibility tests and controlled experiments of alternative design features.

In the fall of 1981, virtually all funding for ISDP research and planning of the continuing SIPP program was deleted from the budget of the Social Security Administration. The loss of funding for fiscal year 1982 brought all work on the new survey to a halt. In fiscal year 1983, however, money for initiation of the new survey was allotted in the budget of the Bureau of the Census. Work began almost immediately in preparation for the survey to start in October 1983. The design of the questionnaire for the first interview was similar in structure to that used in the 1979 ISDP panel study with two important exceptions. First, the reference period for the questions was extended from 3 months to 4 months in order to reduce the number of interviews and, therefore, lower costs. Second, the questions covering labor force activity were expanded in order to provide estimates that were closer, on a conceptual basis, to those derived from the Current Population Survey (CPS). The design also incorporated a number of other modifications resulting from experience with the 1979 pilot study.

SURVEY CONTENT

There are three basic elements in the overall design of the survey. The first is a control card that serves several important functions. The control card is used to record basic social and demographic characteristics for each person in the household at the time of the initial interview. Because households are interviewed a total of eight or nine times, the card is also used to record changes in characteristics such as age, educational attainment, and marital status and to record the dates when persons enter or leave the household. Finally, during each interview, information on each source of income received and the name of each job or business is transcribed to the card so that this information can be used in the updating process in subsequent interviews.

The second major element of the survey content is the core portion of the questionnaire. The core questions are repeated at each interview and cover labor force activity, the types and amounts of income received during the 4-month reference period, and participation status in various programs. Some of the important elements of labor force activity are recorded separately for each week of the period. Income recipiency and amounts are recorded on a monthly basis with the exception of amounts of property income (interest, dividends, rent, etc.). Data for these types are recorded as totals for the 4-month period. The core also contains questions covering attendance in post secondary schools, private health insurance coverage, public or subsidized rental housing, low-income energy assistance, and school breakfast and lunch participation.

The third major element is the various supplements or topical modules that are included during selected household visits. The topical modules cover areas that need not be examined every 4 months. Certain modules are considered to be so important that they are viewed as an integral part of the overall survey. Other topical modules have more specific and more limited purposes. The household relationships topical module, administered during the second wave of the 1991 SIPP panel, was used to produce the data shown in this report.

SAMPLE DESIGN

Each household in the SIPP sample is scheduled to be interviewed at 4-month periods. The reference period for most of the core income and labor force items is the 4-month period preceding the interview. For example, households interviewed in June 1991 were asked questions for the months February, March, April, and May. Since the information collected in the household relationships module refer to the interview month, the period covered in this report is June through September 1991.

The sample households within a given panel are divided into four subsamples of nearly equal size. These subsamples are called rotation groups, and one rotation group is interviewed each month. In general, one cycle of four interviews covering the entire sample, using the same questionnaire, is called a wave. This design was chosen because it provides a smooth and steady work load for data collection and processing.

SURVEY OPERATIONS

Data collection operations are managed through the Census Bureau's 12 permanent regional offices. A staff of interviewers assigned to SIPP conduct interviews by personal visit each month with most interviewing completed during the first 2 weeks of that month. Completed questionnaires are transmitted to the regional offices where they undergo an extensive clerical edit before being entered into the Bureau's SIPP data processing system. Upon entering this processing system, the data are subjected to a detailed computer edit. Errors identified in this phase are corrected and computer processing continues.

Two of the major steps of computer processing are the assignment of weights to each sample person and imputation for missing survey responses. The weighting procedures assure that SIPP estimates of the number of persons agree with independent estimates of the population within specified age, race, and sex categories. The procedures also assure close correspondence with monthly CPS estimates of households. In almost all cases, a survey nonresponse is assigned a value in the imputation phase of processing. The imputation for missing responses is based on procedures generally referred to as the "hot deck" approach. This approach assigns values for nonresponses from sample persons who did provide responses and who have characteristics similar to those of the nonrespondents.

The longitudinal design of the SIPP dictates that all persons 15 years old and over present as household members at the time of the first interview be part of the survey throughout the entire 2.5-year period. To meet this goal, the survey collects information useful in locating persons who move. In addition, field procedures were established that allow for the transfer of sample cases between regional offices. Persons moving within a 100-mile radius of an original sampling area (a county or group of counties) are followed and continue with the normal personal interviews at 4-month intervals. Those moving to a new residence that falls outside the 100-mile radius of any SIPP sampling area are interviewed by telephone. The geographic areas defined by these rules contain more than 95 percent of the U.S. population.

Because most types of analysis using SIPP data will be dependent not on data for individuals but on groups of individuals (households, families, etc.), provisions were made to interview all "new" persons living with original sample persons (those interviewed in the first wave). These new sample persons entering the survey through contact with original sample persons are considered as part of the sample only while residing with the original sample person.

Appendix B. Definitions and Explanations

Population coverage. The estimates in this report are restricted to the civilian noninstitutional population of the United States and members of the Armed Forces living off post or with their families on post. The estimates exclude persons living in group quarters.

Race. The population is divided into three groups on the basis of race: White, Black, and "other races." The last category includes American Indians, Asian/Pacific Islanders, and any other race except White and Black.

Persons of Hispanic origin. Hispanic origin was determined on the basis of a question that asked for self-identification of the person's origin or descent. Respondents were asked to select their origin (or the origin of some other household member) from a "flash card" listing ethnic origins. Persons of Hispanic origin were those who indicated that their origin was Mexican, Puerto Rican, Cuban, Central or South American, or some other Spanish origin. It should be noted that persons of Hispanic origin may be of any race.

Householder. The person (or one of the persons) in whose name the home is owned or rented. If the house is owned jointly by a married couple, the householder may be either the husband or the wife. One person in each household is designated as the "householder." The number of householders, therefore, is equal to the number of households.

Household. A household consists of all persons who occupy a housing unit. A house, an apartment or other group of rooms, or a single room is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters; that is, when the occupants do not live and eat with any other persons in the structure and there is either (1) direct access from the outside or through a common hall or (2) a kitchen or cooking equipment for the exclusive use of the occupants.

For this report, the household composition was determined as of the interview date. A household includes the related family members and all unrelated persons, if any, such as lodgers, foster children, wards, or employees who share the housing unit. A person living alone in a housing unit or two or more unrelated persons sharing a housing unit is also counted as a household. However, the count of households excludes group quarters. Examples of group quarters include rooming and boarding houses, college dormitories, and convents and monasteries.

Family. In this report, "family" and "household" are used interchangeably.

Parent. Unless specified otherwise, a parent is a child's biological, step-, adoptive, or foster mother or father.

Child. Children are all persons under age 18 at the time of the survey, regardless of their marital status or whether or not they are parents.

Nuclear family. The nuclear family is composed of two parents and their children. The parent-child relationship may be biological, step-, adoptive, or foster. Sibling ties may be biological, step-, half-, or adoptive. The parents are not necessarily married. No additional relatives or non-relatives are present in the household.

Traditional nuclear family. A traditional nuclear family consists of a married couple and their biological child(ren). Therefore, a child in a traditional nuclear family lives with both biological parents and, if siblings are present, only full brothers and sisters (i.e., siblings who share the same two biological parents). No others are present in the household (i.e., no step-relatives, foster and adopted children, half-siblings, other relatives, non-relatives).

Extended family/extended household. An extended family/household includes at least one parent, one or more children, and one or more members (related or unrelated) other than a parent or sibling. Parent-child and sibling relationships may be biological, step, adoptive, or foster.

Blended family/blended household: A blended family/household must include at least one stepparent, stepsibling, and/or half-sibling. A stepparent is the spouse of a child's biological parent, but is not the child's biological parent. Stepsiblings do not share a common biological parent; the biological parent of one child is the stepparent of the other. Half-siblings share only one biological parent.

Appendix C. Source and Accuracy of Estimates

SOURCE OF DATA

The SIPP universe is the noninstitutionalized resident population living in the United States. This population includes persons living in group quarters, such as dormitories, rooming houses, and religious group dwellings. Crew members of merchant vessels, Armed Forces personnel living in military barracks, and institutionalized persons, such as correctional facility inmates and nursing home residents, are not eligible to be in the survey. Also not eligible are United States citizens residing abroad. Foreign visitors who work or attend school in this country and their families are eligible; all others are not eligible. With the exceptions noted above, field representatives interview eligible persons who are at least 15 years of age at the time of the interview.

The 1991 SIPP panel is located in 230 Primary Sampling Units (PSU's) each consisting of a county or a group of contiguous counties. Within these PSU's, we systematically selected expected clusters of two living quarters from lists of addresses prepared for the 1980 decennial census to form the bulk of the sample. To account for living quarters built within each of the sample areas after the 1980 census, we selected a sample containing clusters of four living quarters from permits issued for construction of residential living quarters up until shortly before the beginning of the panel.

In jurisdictions that have incomplete addresses or do not issue building permits, we sampled small land areas, listed expected clusters of four living quarters, and then subsampled. In addition, we selected a sample of living quarters from a supplemental frame that included living quarters identified as missed in the 1980 census.

The first interview occurred during February, March, April, and May of 1991. Interviews for approximately one-fourth of the sample took place in each of these months. For the remainder of the panel, interviews for each person occurred every 4 months. At each interview the reference period was the 4 months preceding the interview month.

Occupants of about 93 percent of all eligible living quarters participated in the first interview of the panel. For later interviews, field representatives interviewed only original sample persons (those in Wave 1 sample households and interviewed in Wave 1) and persons living with them. The Bureau automatically designated all first wave noninterviewed households as noninterviews for all subsequent interviews. We followed original sample persons if they moved to a new address, unless the new address was more than 100 miles from a SIPP sample area. If the original sample persons moved farther than 100 miles from a SIPP sample area, we attempted telephone interviews. When the original sample persons moved to remote parts of the country and were unreachable by telephone, moved without leaving a forwarding address, or refused the interview, additional noninterviews resulted.

As a part of most waves, we cover subjects that are important to meet SIPP goals and do not require repeated measurement during the panel. The data on these subjects are of particular interest to data users and policy makers. We cover these subjects once during the panel or annually. By collecting data once for the panel or annually, we reduce respondent burden. We call a specific set of questions on a subject a topical module. For this report, the topical module analyzed includes questions on the living arrangements of children. We implemented them in wave 2 of the 1991 panel.

Noninterviews. Tabulations in this report were drawn from interviews conducted from June through September 1991. Table 1 summarizes information on nonresponse for the interview months in which we collected the data used to produce this report.

Table 1. **Household Sample Size by Month and Interview Status**

Month	Eligible	Interviewed	Noninterviewed	Nonresponse rate (percent)
June 1991	4,000	3,400	600	15.0
July 1991	3,900	3,400	500	13.6
August 1991	4,000	3,400	500	13.0
September 1991	3,900	3,400	500	13.7

[1]Because of rounding of all numbers to the nearest 100, there are some inconsistencies. We calculated the percentage using unrounded numbers.

Some respondents do not respond to some of the questions. Therefore, the overall nonresponse rate for some items is higher than the nonresponse rates in table 1. For more discussion of nonresponse, see the *Quality Profile for the Survey of Income and Program Participation,* May 1990, by T. Jabine, K. King, and R. Petroni, available from Customer Services, Data Users Services Division, of the U.S. Census Bureau (301-763-6100).

WEIGHTING PROCEDURE

We derived SIPP person weights in each panel from several stages of weight adjustments. In the first wave, we gave each person a base weight equal to the inverse of his/her probability of selection. For each subsequent interview, the Bureau gave each person a base weight that accounted for following movers.

We applied a factor to each interviewed person's weight to account for the SIPP sample areas not having the same population distribution as the strata they are from.

We applied a noninterview adjustment factor to the weight of every occupant of interviewed households to account for persons in noninterviewed occupied households that were eligible for the sample. (The Bureau treated individual nonresponse within partially interviewed households with imputation. We made no special adjustment for noninterviews in group quarters.)

The Bureau used complex techniques to adjust the weights for nonresponse. For a further explanation of the techniques used, see the *Nonresponse Adjustment Methods for Demographic Surveys at the U.S. Bureau of the Census*, November 1988, Working paper 8823, by R. Singh and R. Petroni. The success of these techniques in avoiding bias is unknown. An example of successfully avoiding bias is in "Current Nonresponse Research for the Survey of Income and Participation" (paper by Petroni, presented at the Second International Workshop on Household Survey Nonresponse, October 1991).

We performed an additional stage of adjustment to persons' weights to reduce the mean square errors of the survey estimates. We accomplished this by ratio adjusting the sample estimates to agree with monthly Current Population Survey (CPS) type estimates of the civilian (and some military) noninstitutional population of the United States at the national level by demographic characteristics including age, sex, and race as of the specified date. The Bureau brought CPS estimates by age, sex, and race into agreement with adjusted estimates from the 1980 decennial census. Adjustments to the 1980 decennial census estimates reflect births, deaths, immigration, emigration, and changes in the Armed Forces since 1980. In addition, we controlled SIPP estimates to independent Hispanic controls and made an adjustment to assign equal weights to husbands and wives within the same household. We implemented all of the above adjustments for each reference month and the interview month.

ACCURACY OF ESTIMATES

We base SIPP estimates on a sample. The estimates may differ somewhat from the values obtained from administering a complete census using the same questionnaire, instructions, and enumerators. The difference occurs because with an estimate based on a sample survey two types of errors are possible: nonsampling and sampling. We can provide estimates of the magnitude of the SIPP sampling error, but this is not true of nonsampling error. The next few sections describe SIPP nonsampling error sources, followed by a discussion of sampling error, its estimation, and its use in data analysis.

Nonsampling variability. We attribute nonsampling errors to many sources, they include the following:

a. Inability to obtain information about all cases in the sample.

b. Definitional difficulties.

c. Differences in the interpretation of questions.

d. Inability or unwillingness on the part of the respondents to provide correct information.

e. Inability to recall information.

f. Errors made in collection (e.g., recording or coding the data).

g. Errors made in processing the data.

h. Errors made in estimating values for missing data.

i. Biases resulting from the differing recall periods caused by the interviewing pattern used.

j. Undercoverage.

We used quality control and edit procedures to reduce errors made by respondents, coders, and interviewers. More detailed discussions of the existence and control of nonsampling errors in the SIPP are in the *SIPP Quality Profile*.

Undercoverage in SIPP resulted from missed living quarters and missed persons within sample households. It is known that undercoverage varies with age, race, and sex. Generally, undercoverage is larger for males than for females and larger for Blacks than for non-Blacks. Ratio estimation to independent age-race-sex population controls partially corrects for the bias resulting from survey undercoverage. However, biases exist in the estimates when persons in missed households or missed persons in interviewed households have characteristics different from those of interviewed persons in the same age-race-sex group. Further, we did not adjust the independent population controls for undercoverage in the census.

A common measure of survey coverage is the coverage ratio, the estimated population before ratio adjustment divided by the independent population control. Table 2 shows CPS coverage ratios for age-sex-race groups for 1992. The CPS coverage ratios can exhibit some variability from month to month. but these are a typical set of coverage ratios. Other Census Bureau household surveys like the SIPP experience similar coverage.

Table 2. **1992 CPS Coverage Ratios**

Age	All persons			Non-Black		Black	
	Total	Males	Females	Males	Females	Males	Females
0-14	0.958	0.957	0.959	0.963	0.965	0.927	0.926
15	0.948	0.952	0.944	0.962	0.949	0.899	0.919
16	0.947	0.962	0.932	0.969	0.936	0.923	0.907
17	0.966	0.975	0.957	0.981	0.975	0.945	0.862
18	0.922	0.930	0.913	0.939	0.926	0.883	0.846
19	0.853	0.844	0.861	0.860	0.872	0.754	0.801
20-24	0.901	0.889	0.913	0.913	0.927	0.734	0.832
25-26	0.914	0.897	0.931	0.927	0.940	0.688	0.877
27-29	0.914	0.885	0.941	0.910	0.954	0.707	0.864
30-34	0.905	0.870	0.939	0.893	0.948	0.691	0.883
35-39	0.919	0.895	0.942	0.910	0.949	0.763	0.899
40-44	0.933	0.919	0.946	0.929	0.951	0.824	0.906
45-49	0.958	0.951	0.965	0.956	0.966	0.903	0.956
50-54	0.940	0.927	0.951	0.940	0.961	0.807	0.877
55-59	0.930	0.932	0.928	0.944	0.941	0.826	0.825
60-62	0.946	0.946	0.944	0.965	0.956	0.792	0.850
63-64	0.894	0.884	0.903	0.905	0.907	0.669	0.872
65-67	0.947	0.921	0.969	0.935	0.979	0.783	0.875
68-69	0.923	0.913	0.931	0.925	0.942	0.789	0.831
70-74	0.962	0.920	0.995	0.926	0.993	0.856	1.014
75-99	0.975	0.961	0.983	0.977	0.989	0.764	0.912
15+	0.929	0.912	0.944	0.928	0.953	0.782	0.883
0+	0.935	0.923	0.947	0.936	0.955	0.827	0.895

Comparability with other estimates. Exercise caution when comparing data from this report with data from other SIPP publications or with data from other surveys. Comparability problems are from varying seasonal patterns for many characteristics, different nonsampling errors, and different concepts and procedures. Refer to the *SIPP Quality Profile* for known differences with data from other sources and further discussion.

Sampling variability. Standard errors indicate the magnitude of the sampling error. They also partially measure the effect of some nonsampling errors in response and enumeration, but do not measure any systematic biases in the data. The standard errors mostly measure the variations that occurred by chance because we surveyed a sample rather than the entire population.

USES AND COMPUTATION OF STANDARD ERRORS

Confidence intervals. The sample estimate and its standard error enable one to construct confidence intervals, ranges that would include the average result of all possible samples with a known probability. For example, if we selected all possible samples and surveyed each of these under essentially the same conditions and with the same sample design, and if we calculated an estimate and its standard error from each sample, then—

1. Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.
2. Approximately 90 percent of the intervals from 1.645 standard errors below the estimate to 1.645 standard errors above the estimate would include the average result of all possible samples.
3. Approximately 95 percent of the intervals from 1.960 standard errors below the estimate to 1.960 standard errors above the estimate would include the average result of all possible samples.

The average estimate derived from all possible samples is or is not contained in any particular computed interval. However, for a particular sample, one can say with a specified confidence that the confidence interval includes the average estimate derived from all possible samples.

Hypothesis testing. One may also use standard errors for hypothesis testing. Hypothesis testing is a procedure for distinguishing between population characteristics using sample estimates. The most common type of hypothesis tested is (1) the population characteristics are identical versus (2) they are different. One can perform tests at various levels of significance, where a level of significance is the probability of concluding that the characteristics are different when, in fact, they are identical.

Unless noted otherwise, all statements of comparison in the report passed a hypothesis test at the 0.10 level of significance or better. This means that, for differences cited in the report, the estimated absolute difference between parameters is greater than 1.645 times the standard error of the difference.

To perform the most common test, compute the difference $X_A - X_B$, where X_A and X_B are sample estimates of the characteristics of interest. A later section explains how to derive an estimate of the standard error of the difference $X_A - X_B$. Let that standard error be s_{DIFF}. If $X_A - X_B$ is between -1.645 times s_{DIFF} and +1.645 times s_{DIFF}, no conclusion about the characteristics is justified at the 10-percent significance level. If, on the other hand, $X_A - X_B$ is smaller than -1.645 times s_{DIFF} or larger than +1.645 s_{DIFF}, the observed difference is significant at the 10-percent level. In this event, it is commonly accepted practice to say that the characteristics are different. Of course, sometimes this conclusion will be wrong. When the characteristics are, in fact, the same, there is a 10-percent chance of concluding that they are different.

Note that as we perform more tests, more erroneous significant differences will occur. For example, at the 10-percent significance level, if we perform 100 independent hypothesis tests in which there are no real differences, it is likely that about 10 erroneous differences will occur. Therefore, interpret the significance of any single test cautiously.

Note concerning small estimates and small differences. We show summary measures in the report only when the base is 200,000 or greater. Because of the

large standard errors involved, there is little chance that the estimates will reveal useful information when computed on a base smaller than 200,000. Also, nonsampling error in one or more of the small number of cases providing the estimate can cause large relative error in that particular estimate. We show estimated numbers, however, even though the relative standard errors of these numbers are larger than those for the corresponding percentages. We provide smaller estimates primarily to permit such combinations of the categories as serve each user's needs. Therefore, be careful in the interpretation of small differences since even a small amount of nonsampling error can cause a borderline difference to appear significant or not, thus distorting a seemingly valid hypothesis test.

Standard error parameters and tables and their use. Most SIPP estimates have greater standard errors than those obtained through a simple random sample because we sampled clusters of living quarters for the SIPP. To derive standard errors at a moderate cost and applicable to a wide variety of estimates, we made a number of approximations. We grouped estimates with similar standard error behavior and developed two parameters (denoted "a" and "b") to approximate the standard error behavior of each group of estimates. Because the actual standard error behavior was not identical for all estimates within a group, the standard errors we computed from these parameters provide an indication of the order of magnitude of the standard error for any specific estimate. The "a" and "b" parameters found in table 3 are for Wave 2 1991 panel estimates of the living arrangements of children.

For those users who wish further simplification, we also provide general standard errors in tables 4 and 5. The standard errors taken from these tables are less accurate. Methods for using the parameters and tables for computation of standard errors are given in the following sections.

Standard errors of estimated numbers. There are two ways to compute the approximate standard error, s_x, of an estimated number shown in this report. The first method is to look up the standard error of the estimate obtained by interpolation from table 4. Alternatively, approximate s_x using the formula

$$s_x = \sqrt{ax^2 + bx} \qquad (1)$$

from which we calculated the standard errors in table 4. Here x is the size of the estimate and "a" and "b" are the parameters in table 3. Direct calculation with formula 1 will provide more accurate results than interpolating values from table 4.

Illustration. Suppose SIPP estimates show that 13,955,000 children under age 18 lived in single-mother families in 1991. The "a" and "b" parameters from table 3 and the appropriate general standard error found by interpolation from table 4 are a = -0.0001340, b = 7,514, s_x = 279,000.

The 90-percent confidence interval as shown is from 13,496,000 to 14,414,000. Using formula (1), the approximate standard error is

$$\sqrt{(-0.0001340)(13{,}955{,}000)^2 + (7{,}514)(13{,}955{,}000)} = 281{,}000$$

The 90-percent confidence interval as shown is from 13,493,000 to 14,417,000. Therefore, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 90 percent of all samples.

Standard errors of estimates percentages. The reliability of an estimated percentage, computed using sample data for both numerator and denominator, depends on the size of the percentage and its base. One way to find the approximate standard error, $s_{(x,p)}$, of an estimated percentage p, which is the percentage of persons with a particular characteristic, is by interpolating values from table 5.

Alternatively, approximate it by the formula—

$$s_{(x,p)} = \sqrt{\frac{b}{x}(p)(100-p)} \qquad (2)$$

from which we calculated the standard errors in table 5. Here x is the total number of persons in the base of the percentage, p is the percentage ($0 \leq p \leq 100$), and b is the "b" parameter in table 3. Use of this formula will give more accurate results than interpolating values from table 5.

Illustration. Suppose that SIPP estimates 1 out of every 5 children or 20 percent, in single-mother families lived with at least one adult male in the household. The base for this percentage is 13,955,000. The "b" parameter from table 3 and the appropriate general standard error found by interpolation from table 5 are

b = 7,514 and s_x = 0.9 percent

Using formula (2), the approximate standard error is

$$\sqrt{\frac{7{,}514}{13{,}955{,}000}\,20(100-20)} = 0.9 \text{ percent}$$

The 90-percent confidence interval as shown is from 19 to 21 percent. Therefore, a conclusion that the average percentage derived from all possible samples lies within a range computed in this way would be correct for roughly 90 percent of all samples.

Standard error of a difference. The standard error of a difference between two sample estimates, x and y, is approximately equal to

$$s_{(x-y)} = \sqrt{s_x^2 + s_y^2 - 2rs_xs_y} \qquad (3)$$

where s_x and s_y are the standard errors of the estimates x and y and r is the correlation coefficient between the characteristics estimated by x and y. The estimates can be numbers, averages, percents, ratios, etc. Underestimates or overestimates of the standard error of differences result if the estimated correlation coefficient is overestimated or underestimated, respectively. In this report, r is assumed to be 0.

Illustration. Suppose we need the difference in the percentage of White children who lived with two parents and Black children who lived with two parents in 1991. From the 51,944,000 White children and the 10,571,000 Black children, 79 percent and 42 percent, respectively, lived with two parents in 1991. Using formula 2 and the "b" parameter, the standard errors of these percentages are approximately 0.5 percent and 1.3 percent, respectively.

Now, we compute the standard error of the difference using the above two standard errors. The correlation between these estimates is assumed to be zero. Therefore, we compute the standard error of the difference using formula 3.

$$s_{(x-y)} = \sqrt{(0.5)^2 + (1.3)^2} = 1.4 \text{ percent}$$

Suppose that it is desired to test at the 10-percent significance level whether the two percentages differ significantly. To perform the test, compare the difference of 37 percent to the product of 1.645 x 1.4 percent = 2.3 percent. Since the difference is larger than 1.645 times the standard error of the difference, the data show that the estimates of 79 and 42 percent differ significantly at the 10-percent level.

Table 3. **SIPP Topical Module Generalized Variance Parameters for the 1991 Panel**

Characteristics	a	b
Children 0 to 17 years	-0.0001340	7,514

Table 4. **Standard Errors of Estimated Numbers of Persons**

(Numbers in thousands)

Size of estimate	Standard error
200	39
300	47
500	61
1,000	86
2,000	120
3,000	146
5,000	185
7,500	221
10,000	248
15,000	287
25,000	323
35,000	314
40,000	294
45,000	258
48,000	228
50,000	202
52,000	168
55,000	89
60,000	24

Table 5. **Standard Errors of Estimated Percentages of Persons**

Base of estimated percentage (thousands)	Estimated percentages					
	≤ 1 or ≥ 99	2 or 98	5 or 95	10 or 90	25 or 75	50
200	1.93	2.71	4.22	5.81	8.39	9.69
300	1.57	2.22	3.45	4.75	6.85	7.91
500	1.22	1.72	2.67	3.68	5.31	6.13
1,000	0.86	1.21	1.89	2.60	3.75	4.33
2,000	0.61	0.86	1.34	1.84	2.65	3.06
3,000	0.50	0.70	1.09	1.50	2.17	2.50
5,000	0.39	0.54	0.84	1.16	1.68	1.94
7,500	0.31	0.44	0.69	0.95	1.37	1.58
10,000	0.27	0.38	0.60	0.82	1.19	1.37
15,000	0.22	0.31	0.49	0.67	0.97	1.12
25,000	0.17	0.24	0.38	0.52	0.75	0.87
35,000	0.15	0.21	0.32	0.44	0.63	0.73
40,000	0.14	0.19	0.30	0.41	0.59	0.69
45,000	0.13	0.18	0.28	0.39	0.56	0.65
48,000	0.12	0.18	0.27	0.38	0.54	0.63
50,000	0.12	0.17	0.27	0.37	0.53	0.61
52,000	0.12	0.17	0.26	0.36	0.52	0.60
55,000	0.12	0.16	0.25	0.35	0.51	0.58
60,000	0.11	0.16	0.24	0.34	0.48	0.56
65,000	0.11	0.15	0.23	0.32	0.47	0.54
66,000	0.11	0.15	0.23	0.32	0.46	0.53

Appendix D. Data Quality

The household relationships topical module is administered once per SIPP panel, during the second 4-month cycle of interviews. The time period covered in this report is June through September, 1991. Respondents (usually the householder or the householder's spouse) are asked to describe the relationships among all members of the household as of the interview date. Information is collected for a maximum of 14 persons, regardless of the total size of the household. Since none of the children in the 1991 file lived in a household that large, no information was lost because of this restriction.

Please refer to appendix E for facsimiles of the questionnaire and the flash card. Interviewers were instructed to ask respondents to select the category that most appropriately described the relationship of one person to another. Valid responses include general categories such as "Other mother" or "Other child," and "Don't know." To provide researchers with maximum opportunity to analyze data as they deem appropriate, responses of "Other" and "Don't know" have not been imputed except, in general, for consistency with data on sex. It should also be noted that the responses reflect how the respondent characterized the relationship. For example, "father" might in some cases refer to a man who assumed a parental role, though lacked biological or legal ties to the child.

Information is missing for a sizeable proportion of children in the 1991 file: 8 percent of all children lived with at least one person whose relationship to the child was completely unknown (table D-1). Slightly higher proportions of Black (10 percent) and Hispanic (13 percent) children had incomplete records, compared with Whites (8 percent). Children who lived with neither parent nor a grandparent most frequently had data missing (19 percent). A fairly high percentage of children living with single fathers also had incomplete records (13 percent), compared with those in two-parent or single-mother families (8 percent).

In this report, children for whom information was lacking on all relationships were placed in the "Unknown" category in table 1, and were excluded from subsequent tables. Those with partially complete files were analyzed on the basis of the information available.

Table D-1. Children With Incomplete Household Records, by Race and Hispanic Origin

[Number in thousands]

Living arrangements	Total children	Incomplete data	
		Number	Percent
All children under 18 years	65,727	5,544	8.4
Living with—			
Two parents	47,826	3,609	7.5
One parent	15,748	1,393	8.8
Mother only	13,955	1,164	8.3
Father only	1,793	229	12.8
Grandparents only	1,099	43	3.9
Other	689	134	19.4
Unknown	365	365	100.0
White	51,944	4,092	7.9
Living with—			
Two parents	40,995	2,917	7.1
One parent	9,919	897	9.0
Mother only	8,503	727	8.5
Father only	1,416	170	12.0
Grandparents only	469	26	5.5
Other	385	77	20.0
Unknown	175	175	100.0
Black	10,571	1,078	10.2
Living with—			
Two parents	4,404	401	9.1
One parent	5,196	465	8.9
Mother only	4,938	422	8.5
Father only	258	43	16.7
Grandparents only	570	17	3.0
Other	262	57	21.8
Unknown	138	138	100.0
Hispanic origin[1]	7,525	983	13.1
Living with—			
Two parents	4,826	574	11.9
One parent	2,337	213	9.1
Mother only	2,141	189	8.8
Father only	196	24	12.2
Grandparents only	100	21	21.0
Other	110	24	21.8
Unknown	152	152	100.0

[1]Persons of Hispanic origin may be of any race.

Appendix E. Facsimile of Household Relationships Questionnaire

CARD HH

WAVE 2, 1991 PANEL

HOUSEHOLD RELATIONSHIPS

SPOUSE:		**01**	Husband
		02	Wife
PARENT:	Father:	**10**	Natural father (biological)
		11	Stepfather (husband of biological mother of child)
		12	Adoptive father (legal)
		13	Foster father (officially designated by a government agency)
		18	Unknown parent type
	Mother:	**14**	Natural mother (biological)
		15	Stepmother (wife of biological father of child)
		16	Adoptive mother (legal)
		17	Foster mother (officially designated by a government agency)
		18	Unknown parent type
CHILD:	Son:	**20**	Natural son (biological)
		21	Stepson
		22	Adopted son
		23	Foster son
		28	Unknown child type
	Daughter:	**24**	Natural daughter (biological)
		25	Stepdaughter
		26	Adopted daughter
		27	Foster daughter
		28	Unknown child type
SIBLING:	Brother:	**30**	Full brother (share two biological parents)
		31	Half brother (share one biological parent)
		32	Stepbrother (no common biological parents)
		33	Adoptive brother
		38	Unknown sibling type
	Sister:	**34**	Full sister (share two biological parents)
		35	Half sister (share one biological parent)
		36	Stepsister (no common biological parents)
		37	Adoptive sister
		38	Unknown sibling type
GRANDPARENT:		**40**	Grandfather (biological, step, or adopted)
		41	Grandmother (biological, step, or adopted)
GRANDCHILD:		**42**	Grandson (biological, step, or adopted)
		43	Granddaughter (biological, step, or adopted)
UNCLE/AUNT:		**44**	Uncle (brother of the person's mother or father or the husband of the sister of the person's mother or father)
		45	Aunt (sister of the person's mother or father or the wife of the brother of the person's mother or father)
NEPHEW/NIECE:		**46**	Nephew (son of the person's brother or sister)
		47	Niece (daughter of the person's brother or sister)
IN-LAWS:		**50**	Father-in-law
		51	Mother-in-law
		52	Son-in-law
		53	Daughter-in-law
		54	Brother-in-law
		55	Sister-in-law
			Include biological, step, or adoptive relationships
OTHER RELATIVE:		**60**	Cousin, etc. (cousin, great grandparent, great aunt, great uncle, etc.)
NONRELATIVE:		**70**	Not related (by blood, marriage or adoption)
		99	No response

HH

FORM SIPP 11204 (2-1-91)

Section 5 — TOPICAL MODULES (Continued)

Part H — HOUSEHOLD RELATIONSHIPS

CHECK ITEM C1a — What is the composition of this household? 9288
1 One person HH
2 Two person HH consisting of husband and wife
3 Two person HH consisting of non relatives
4 Other
→ SKIP to Check Item C1, page 75

CHECK ITEM C1b — Is this the Reference Person's questionnaire? 9289
1 Yes
2 No — SKIP to Check Item C1, page 75

Pretranscribe each person's name and person number into column headings a – n, last names and person numbers in the SAME ORDER in the roster down the left side of this page.

AT TIME OF INTERVIEW
Verify the Roster against the current household composition in (c) items 1B and 19a. If a person who was pretranscribed has left the household since last wave, **line out** name and person number in Roster space and column. If a person has entered the household since last wave, **write in** name and person number in the first available (blank) Roster space and column.

STATEMENT 1 — **Now I need to record the EXACT relationships among the persons living here. Please answer by describing adoptive, step, or foster relationships, where appropriate.**
For each person number listed on the left side of this page, ask question 1 and enter codes from Flashcard HH.

ASK OR VERIFY

1 What is the EXACT relationship of (person listed in roster) **to** (each person listed in columns a – n)?

ROSTER	a.	b.	c.	d.	e.	f.
	Name / Person No. 9272	Name / Person No. 9276	Name / Person No. 9278	Name / Person No. 9279	Name / Person No. 9280	Name / Person No. 9282
9306 Name / Person No.						
9330 Name / Person No.	9331					
9360 Name / Person No.	9361	9364				
9390 Name / Person No.	9392	9394	9396			
9420 Name / Person No.	9422	9424	9426	9428		
9450 Name / Person No.	9452	9454	9456	9458	9460	
9480 Name / Person No.	9482	9484	9486	9488	9490	9492
9510 Name / Person No.	9512	9514	9516	9518	9520	9522
9540 Name / Person No.	9542	9544	9546	9548	9550	9552
9570 Name / Person No.	9572	9574	9576	9578	9580	9582
9600 Name / Person No.	9602	9604	9606	9608	9610	9612
9630 Name / Person No.	9632	9634	9636	9638	9640	9642
9660 Name / Person No.	9662	9664	9666	9668	9670	9672
9690 Name / Person No.	9692	9694	9696	9698	9700	9702

GO to Check Item C1, page 75

Section 5 — TOPICAL MODULES (Continued)

Part H — HOUSEHOLD RELATIONSHIPS (Continued)

NOTES

	g.	h.	i.	j.	k.	l.	m.	n.
	Name / Person No. 9294	Name / Person No. 9296	Name / Person No. 9298	Name / Person No. 9299	Name / Person No. 9297	Name / Person No. 9294	Name / Person No. 9296	Name / Person No. 9298
9324 Name / Person No.								
9354 Name / Person No.	9356							
9384 Name / Person No.	9386	9388						
9414 Name / Person No.	9416	9418	9420					
9444 Name / Person No.	9446	9448	9450	9452				
9474 Name / Person No.	9476	9478	9480	9482	9484			
9504 Name / Person No.	9506	9508	9510	9512	9514	9516		

BEST COPY AVAILABLE

*U.S. Government Printing Office: 1984 — 300-557/00056

U.S. Department of Commerce
BUREAU OF THE CENSUS
Washington, D.C. 20233

Official Business
Penalty for Private Use, $300

FIRST-CLASS MAIL
POSTAGE & FEES PAID
CENSUS
PERMIT No. G–58

P70-38 The Decennial Living Arrangements of Children: Summer 1991

Depository Libraries . . .

BRINGING GOVERNMENT INFORMATION TO YOU

Information from the Federal Government on subjects ranging from agriculture to zoology is available at Depository Libraries across the nation.

You can visit these libraries and use the Depository collection without charge.

To find one in your area, contact your local library or write to the Federal Depository Library Program, Office of the Public Printer, Washington, DC 20401.

The Federal Depository Library Program

This program is supported by The Advertising Council and is a public service of this publication